DOCUMENT RESUME

ED 233 266 CG 016 844

AUTHOR Katzman, Melanie A.; And Others
TITLE The Prevalence of Frequent Binge Eating and Bulimia in a Non-Clinical College Sample.
PUB DATE Apr 83
NOTE 15p.; Paper presented at the Annual Convention of the Southwestern Psychological Association (29th, San Antonio, TX, April 21-23, 1983).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Behavior Patterns; Behavior Problems; College Students; Diagnostic Tests; *Eating Habits; *Females; Higher Education; *Identification; Physical Health; Psychological Patterns; Self Control; *Sex Differences
IDENTIFIERS *Binge Eating; *Bulimarexia; *Bulimia; Diagnostic Statistical Manual of Mental Disorders

ABSTRACT

Bulimia, an eating disorder characterized by binge eating, may be increasing in frequency. In order to examine and assess: (1) the prevalence of bulimia in a non-clinical sample of college women; (2) the relationship of reports of binge eating to the fulfillment of operationalized Diagnostic and Statistical Manual III (DSM III) criteria for bulimia; (3) the prevalence of binge eating in males and females at times other than meals; and (4) sex differences in the labeling of one's behavior as binge eating, 327 male and 485 female college students responded to a questionnaire requesting information about binge eating and its frequency. Of the 147 women who responded positively to both questions, 105 completed an operationalized form of the DSM III in which the criteria for bulimia were defined. Large quantities of food was defined as 1,200 calories or more per binge; episodic eating patterns was defined as a minimum of 8 binges per month; and repeated attempts to lose weight was defined as two or more attempts in the past month. Analysis of results showed that 56 percent of the women and 38 percent of the men reported binge eating, and more women than men labeled their behavior as binge eating. However, only 7.2 percent of the women binged 8 or more times per month. The criteria for bulimia in the operationalized DSM III were fulfilled by 3.9 percent of the women, suggesting that bulimia may be a more prevalent disorder in non-clinical college women than previously suspected. (MCF)

**********
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
**********

ED233266

# The Prevalence of Frequent Binge Eating and Bulimia in a Non-Clinical College Sample

Melanie A. Katzman, M.A.
Sharlene A. Wolchik, Ph.D.
Sanford L. Braver, Ph.D.
Arizona State University
Department of Psychology
Tempe, Arizona 85287

Please do not quote without permission of the authors.

CG 016844

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Melanie Katzman

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

This study examined the prevalence of bulimia and frequent binge eating in female college students. Additionally, sex differences in binge eating and in labeling one's behavior as binge eating were assessed. All students in an introductory psychology course, 485 women and 327 men, were subjects. Forty-nine percent of all students reported binge eating. Significantly more women than men reported binge eating and labeled their behavior binge eating. While 56% of the women reported binge eating, only 7.2% reported 8 or more episodes a month. Approximately four percent of the women sampled fulfilled operationalized DSM III criteria for bulimia.

In 1980 the Diagnostic and Statistical Manual III (DSM III) included the eating disorder "bulimia". The diagnostic features include: episodic eating patterns involving rapid consumption of large quantities of food in a discrete period of time, usually less than 2 hours; awareness that this eating pattern is abnormal; fear of not being able to stop eating voluntarily; and depressed mood and self depricating thoughts following the eating binges. Three of the following behaviors are also needed: eating in private during a binge; termination of a binge through sleep, social interruption, self induced vomiting, or abdominal pain; repeated attempts to lose weight by self induced vomiting, severely restrictive diets, or use of cathartics and/or diuretics; and frequent weight fluctuations due to alternating binges and fasts. Finally, the bulimic episodes must not be due to anorexia nervosa or any known physical disorder (1).

Although this pattern of excessive intake followed by voluntary purging was reported in the clinical literature as early as 1916 by Abraham (2), only recently has much attention been given to this disorder. Bulimia has been studied under a variety of different names including bulimerexia (3, 4), binge starver (3, 4), bulimia nervosa (5) and thin fats (6). The use of different diagnostic labels and the absence of objective diagnostic criteria make comparison of results across studies difficult. Although the definition in the DSM III is a valuable first step in specifying the features of this disorder, the behaviors required for diagnosis are not quantified nor placed within a time frame. Further operationalization of these criteria would enhance communication between researchers.

While bulimia has been considered a rare disorder (6), recent studies suggest an increase in its frequency (7). In 1980, Stangler and Printz (7) reported that 3.8% of college students treated at a university mental

clinic were bulimic using the DSM III criteria and that this diagnosis was significantly more common in women than men. This finding lends support to the clinical observation of Boskind-Lodahl (3) that this cycle may be more common among young women in college settings than previously realized. However, the prevalence of bulimia in non-clinical college samples has not yet been investigated.

The prevalence of binge eating, the core characteristic of bulimia, has been examined in college students by Hawkins and Clement (8) who asked students "Do you binge eat?". Seventy-nine percent of the women and 49% of the men responded affirmatively. Several researchers (9,10) have suggested that by studying binge eating, we may further our understanding of bulimia. However, generalizing from studies of binge eaters to bulimics may be inappropriate. Further research is needed to assess whether women who respond affirmatively to a question about binge eating are demonstrating bulimia as defined by the DSM III.

Another research issue concerns sex differences in binge eating. Hawkins and Clements (8) report significant sex differences in binge eating in several college samples. Actual differences in the occurrence of binge eating may exist. Alternately, similar percentages of men and women may report frequent consumption of large quantities of food but, given women's stronger desire for a lower weight (11), they may be more likely than men to label this behavior as binge eating.

The goals of the present study were as follows: 1) to assess the prevalence of bulimia in a non-clinical sample of college women, using an operationalized version of DSM III diagnostic criteria, 2) to examine the relationship between reports of binge eating and the fulfillment of operationalized DSM III criteria for bulimia, 3) to assess the prevalence

of binge eating and of frequent consumption of large quantities of food at times other than meals in both male and female students and 4) to examine sex differences in the labeling of one's behavior as binge eating.

## Method

Subjects. Subjects were 327 male and 485 female students, all of the students enrolled in an introductory psychology course during the semester in which the study was conducted.

Procedure. All subjects answered the following questions which were part of a large questionnaire administered at the beginning of the semester: "Do you binge eat?" and "Do you frequently consume large quantities of food at times other than meals?"

An attempt was made to reach the 147 women who responded positively to both questions. All 105 of these women who could be contacted by telephone agreed to and completed an additional questionnaire.

This questionnaire included an operationalized form of the DSM III criteria for bulimia, a question assessing interest in treatment for the eating problem and a rating of the degree of disruption caused by their eating habits on a scale of 1 (not disruptive) to 7 (very disruptive). This questionnaire was administered in small groups after the experimental procedures had been explained and informed consent had been obtained. After completing the questionnaire, all women were weighed and measured.

Operationalized criteria for bulimia. The criteria used in this study retained the DSM III requirements. However, the following components of the criteria were operationalized: "large quantities of food" was defined as 1200 calories or more per binge; "episodic eating patterns" was defined as a minimum of 8 binges per month and "repeated attempts to lose weight" was defined as two or more attempts in the past month. These parameters were

chosen to reflect the lower end of the ranges reported in previous studies of bulimia (12, 13). In addition, women could not have been diagnosed as anorexic in the past year.

On the basis of responses to these diagnostic questions, women who fulfilled all of the criteria for bulimia were classified "bulimic". Those women who reported 8 or more episodes of binge eating a month but who failed to meet one or more of the criteria were classified as "frequent binge eaters". Data on the remaining women, those who reported less than 8 episodes of binge eating a month, were collected but not analyzed.

## Results

Forty-nine percent or 397 of the 812 undergraduate psychology students responded affirmatively to the question "Do you binge eat?". As shown in Table 1, 56% or 274 of the women and 38% or 123 of the men reported eating binges. A chi square analysis comparing the percentage of female and male binge eaters indicated a significant difference, (chi square = 24.47, df = 1, $p < .001$). Forty-three percent of the men and 37% of the women reported frequent consumption of large quantities of food at times other than meals. This gender difference was not significant.

Insert Table 1 about here

Further analyses were conducted using the subjects who reported frequent consumption of large quantities of food to assess sex differences in labeling one's eating behavior as binge eating. Sixty percent of the men and 83% of the women who reported frequent consumption of large quantities of food also reported binge eating. A chi square analysis indicated that this gender difference, was significant, (chi square = 45.87, df = 3, $p < .001$).

Results of the questionnaire responses of the 105 women who completed

the additional questionnaire were used to estimate the prevalence of frequent binge eating and bulimia in the current sample.[1] As shown in Table 2, 3.9% of the total sample of women fulfilled all of the diagnostic criteria for bulimia. An additional 3.3% of the women reported at least 8 binge eating episodes a month but failed to meet all the criteria for bulimia. Of the 56% reporting binge eating, 5.8% reported 8 or more episodes of binge eating in the past month, but did not fulfill the criteria for bulimia while 6.9% of this group fulfilled the criteria for bulimia.

All of the bulimic women viewed their eating habits as disruptive (M = 6.4) and 93% reported an interest in treatment for their eating problem. In contrast, the binge eaters viewed their habits as only a little disruptive (M = 3.6) and only 25% expressed a desire for treatment. All of the bulimics and binge eaters were of normal weight as determined by their weights falling within the average limits established by the Metropolitan Life Insurance Company (14).

Insert Table 2 about here

## Discussion

The prevalence data for binge eating, as defined by an affirmative response to the question, "Do you binge eat?", indicated that 38% of the male college students in the current sample reported binge eating. This figure is similar to that of Hawkins and Clement (8) who reported that 45% of college men were binge eaters. While Hawkins and Clement (8) reported binge eating in 78% of normal weight college women, only 56% of the women in the present sample reported binge eating.

Results of the present study concur with the observation made by Hawkins and Clements (8) that significantly more women than men report

binge eating. No significant differences in the percentages of men and women reporting frequent consumption of large quantities of food at times other than meals occurred, yet women were more likely to label their behavior as binge eating. This finding suggests that labeling one's behavior as binge eating is subjective and occurs more often in women. Merely asking subjects whether they binge eat provides little information as to the frequency of this behavior.

The results also indicate that although over one third of the women report frequent consumption of large quantities of food, the vast majority of women in this sample reported binge eating less than eight times a month. In fact, only 7.2% of the female sample reported eight or more episodes of binge eating per month. Of the women reporting frequent binge eating, only 6.9% were bulimic using an operationalized form of the DSM III. This finding suggests that one should interpret cautiously studies such as Clement and Hawkins (9), which draw conclusions about bulimia from research conducted on women who report binge eating.

The finding that 3.9% of the college women sampled fulfilled operationalized criteria for bulimia supports the suggestion that bulimia may be a more pervasive disorder than previously suspected (3) and one which exists in both clinical and non-clinical college populations (7, 11). The current prevalence figure for bulimia is strikingly similar to the 3.8% reported by Stangler & Printz (7) for a clinical sample at a university treatment center. None of the bulimics in the current sample were receiving treatment, although all of these women viewed their eating habits as disruptive and nearly all expressed an interest in receiving treatment for their eating behavior.

In summary, results of the current study indicated that 56% of the

women and 38% of the men reported binge eating. Also, more women than men labeled their eating behavior as binge eating. While many women reported binge eating, only 7.2% of these women did so eight or more times a month. Of the women in the present college sample, 3.9% fulfilled an operationalized definition of the DSM III diagnostic criteria for bulimia. These findings suggest that bulimia may be a more prevalent disorder in non-clinical college women than previously suspected.

## References


1. Diagnostic and Statistical Manual of Mental Disorders (3rd ed.). Washington, D.C.: American Psychological Association, 1980.
2. Abraham, K. The first pregenital stage of the libido (1916): Selected papers of Karl Abraham. New York: Basic Books, 1954.
3. Boskind-Lodahl, M. Cinderella's stepsisters: A feminist perspective on anorexia nervosa and bulimia. Signs' Journal of Women in Culture and Society, 2: 342-56, 1976.
4. Boskind-Lodahl, M., & Sirlin, J. The gorging-purging syndrome. Psychology Today, March, 50-52, 82-85, 1977.
5. Russell, G.F.M. Bulimia nervosa: An ominous variant of anorexia nervosa. Psychological Medicine, 9: 429-48, 1979.
6. Bruch, H. Eating disorders. London: Routledge & Kegan, Publishers, 1974.
7. Stangler, R. S., & Printz, A. M. DSM III: Psychiatric diagnosis in a university population. American Journal of Psychiatry, 137: 937-40, 1980.
8. Hawkins, R. C., & Clement, P. F. Development and construct validation of a self-report measure of binge eating tendencies. Addictive Behaviors, 5: 219-60, 1980.
9. Clement, P. F. & Hawkins, II, R.C. Pathways to bulimia: Personality correlates, prevalence, and a conceptual model. Paper presented at the annual convention of the Association for the Advancement of Behavior Therapy, New York, 1980.
10. Loro, A. D. & Orleans, C. S. Binge eating in obesity: Preliminary findings and guidelines for behavioral analyses and treatment. Addictive Behaviors, 6: 155-166, 1981.

11. Carroll, K., & Leon, G. R. The bulimia-vomiting disorder within a generalized substance abuse pattern. Paper presented at the annual meeting of the Association for the Advancement of Behavior Therapy, Toronto, November, 1981.

12. Mitchell, J. E., Pyle, R. L., & Eckert, E. D. Frequency and duration of binge-eating episodes in patients with bulimia. American Journal of Psychiatry, 138: 835-36, 1981.

13. Pyle, R. L., Mitchell, J. E., & Eckert, E. D. Bulimia: A report of 34 cases. Journal of Clinical Psychiatry, 42: 60-64, 1981.

14. Metropolitan Life Insurance Company of New York: New weight standards for males and females. Statistical Bulletin, 40: 2-3, 1959.

## Footnote

Prevalence data for the 147 women were estimated by computing the percentage of the 105 women who completed the questionnaire and who were bulimics or binge eaters. These percentages were extrapolated to the remaining 42 women who could not be contacted by telephone.

Table 1

Results of Eating Questionnaire (n=812)

| | "Do you Binge Eat" | | | |
|---|---|---|---|---|
| | Yes | | No | |
| | Men | Women | Men | Women |
| "Do you frequently consume large quantities of food at times other than meals? | | | | |
| Yes | 69% (85) | 54% (147) | 27% (56) | 15% (31) |
| No | 31% (38) | 46% (127) | 73% (148) | 85% (180) |
| Total | 38% (123) | 56% (274) | 62% (204) | 49% (211) |

Table 2

Prevalence Data[1] for Female Bulimics and Binge Eaters

| Group | Sample Type | | |
|---|---|---|---|
| | All Women ($n$ = 485) | Women who said yes when asked, "Do you binge eat?" ($n$ = 274) | Women who said yes when asked, "Do you binge eat?" and "Do you frequently consume large quantities of food at times other than meals?" ($n$ = 147) |
| Bulimic | 3.9% | 6.9% | 13.0% |
| Binge Eaters (Binges $\geq$ 8/month) | 3.3% | 5.8% | 11.0% |